

**MICHIGAN DEPARTMENT OF CIVIL SERVICE
JOB SPECIFICATION**

ENVIRONMENTAL ENGINEER

JOB DESCRIPTION

Employees in this job complete or oversee a variety of professional assignments that provide for a clean and healthy environment through the protection and improvement of land and water resources, occupational health, and air quality.

There are four classifications in this job.

Position Code Title – Environmental Engineer-E

Environmental Engineer 9

This is the entry level. As a trainee, the employee carries out a range of professional environmental engineering assignments while learning the methods of the work.

Environmental Engineer 10

This is the intermediate level. The employee carries out an expanding range of professional environmental engineering assignments in a developing capacity.

Environmental Engineer P11

This is the experienced level. The employee performs a full range of professional environmental engineer assignments in a full functioning capacity. Considerable independent judgment is used to make decisions in carrying out assignments that have significant impact on services or programs. Guidelines may be available, but require adaptation or interpretation to determine appropriate courses of action.

Position Code Title – Environmental Engineer-A

Environmental Engineer 12

This is the advanced level. The employee may function as a lead worker or senior worker. At this level, employees are responsible for overseeing the work assignments of other professionals or have regular assignments, which have been recognized by Civil Service as having significantly greater complexity than those assigned at the experienced level in the series.

JOB DUTIES

NOTE: The job duties listed are typical examples of the work performed by positions in this job classification. Not all duties assigned to every position are included, nor is it expected that all positions will be assigned every duty.

Inspects, investigates, and reviews reports on operations of water supplies, municipal and industrial wastewater treatment systems, industrial plants, and health care and solid waste facilities; examines plans and specifications of proposed systems for approval.

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Determines effectiveness and offers recommendations regarding location, design, structure, operation, and maintenance of facilities and systems.

Participates in studies and monitoring programs to determine environmental conditions.

Analyzes and interprets field and laboratory data.

Prepares reports outlining findings and corrective measures.

Participates in follow-up investigations to insure required corrective measures are taken.

Makes stream flow measurements, analyzes precipitation patterns, and conducts snow surveys to determine flood frequency discharges.

Furnishes hydrologic information for site selection and the design of structures, channels, and other floodways.

Collaborates with others in coordinating the hydraulic and hydrologic phases of watershed planning with the engineering, economic, geologic, soil and biologic phases.

Reviews for approval, applications for permits to alter or occupy the channels or flood plains of rivers and streams; determines possible effects on increasing flood levels.

Uses engineering field data to review preliminary plats of new subdivisions to determine flood plain limits.

Develops and applies mathematical models to determine the impacts of water pollution.

Inspects air and water pollution control devices to determine compliance with applicable regulations; determines appropriate options for achieving compliance in situations involving violations.

Reviews air use and hazardous waste disposal permit applications for approval.

Reviews applications for licenses and permits involving the treatment, storage, disposal and construction of facilities for hazardous waste; drafts permits, licenses, and denials; and examines adequacy of closure plans.

Conducts inspections and investigations of environmentally regulated facilities; surveys and determines the nature and extent of current and potential environmental hazards.

Performs various environmental investigations dealing with soil and groundwater contamination; may determine and oversee appropriate response.

Discusses legal and regulatory compliance requirements with engineers and consultants representing parties affected by same.

Evaluates air use permit applications to determine compliance with state and federal laws.

Assists in the development of ambient air pollution control strategies to reduce air pollution, and conducts engineering evaluations of pollution sources and control systems.

Responds to complaints or requests for information from the public; may speak before groups.

May respond to hazardous waste spills and other pollution control emergencies.

Maintains records and prepares reports and correspondence related to the work.

May perform related essential functions appropriate to the class and other non-essential functions as required.

Additional Job Duties

Environmental Engineer 12 (Lead Worker)

Oversees the work of professional staff by making and reviewing work assignments, establishing priorities, coordinating activities, and resolving related work problems.

Environmental Engineer 12 (Senior Worker)

Performs on a regular basis professional environmental engineer assignments, which are recognized by Civil Service as more complex than those assigned at the experienced level.

JOB QUALIFICATIONS

Knowledge, Skills, and Abilities

NOTE: Some knowledge in the area listed is required at the entry level, developing knowledge is necessary at the intermediate level, considerable knowledge is required at the experienced level, and thorough knowledge is required at the advanced level.

Knowledge of the principles and practices of environmental engineering.

Knowledge of the scientific principles relative to environmental control.

Knowledge of mathematical models that simulate an air or water stream's response to pollutants.

Knowledge of nomenclature and symbols used in engineering, drafting, and design.

Ability to apply principles and practices to environmental engineering.

Ability to prepare engineering drawings.

Ability to read, interpret, and write engineering reports.

Ability to collect and analyze engineering data.

Ability to maintain records, and prepare reports and correspondence related to the work.

Ability to communicate effectively with others.

Ability to maintain favorable public relations.

Additional Knowledge, Skills, and Abilities

Environmental Engineer 12 (Lead Worker)

Ability to organize and coordinate the work of others.

Ability to set priorities and assign work to other professionals.

Working Conditions

None.

Physical Requirements

None.

Education

Possession of a bachelor's degree in engineering.

Experience

Environmental Engineer 9

No specific amount or type is required.

Environmental Engineer 10

One year of professional environmental engineering experience in the protection and improvement of land and water resources, occupational health, or air quality equivalent to an Environmental Engineer 9.

Environmental Engineer P11

Two years of professional environmental engineering experience in the protection and improvement of land and water resources, occupational health, or air quality equivalent to an environmental engineer in state service, including one year equivalent to an intermediate level Environmental Engineer 10.

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Environmental Engineer 12

Three years of professional environmental engineering experience in the protection and improvement of land and water resources, occupational health, or air quality equivalent to an Environmental Engineer, including one year of experience equivalent to an experienced level Environmental Engineer P11.

Special Requirements, Licenses, and Certifications

None.

NOTE: Equivalent combinations of education and experience that provide the required knowledge, skills, and abilities will be evaluated on an individual basis.

JOB CODE, POSITION TITLES AND CODES, AND COMPENSATION INFORMATION

Job Code

ENVIROENG

Job Code Description

Environmental Engineer

Position Title

Environmental Engineer-E

Environmental Engineer-A

Position Code

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Pay Schedule

H21-008

H21-013

ECP Group 2
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